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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Eiko Tagusari

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EDWARDS ANGELL PALMER & DODGE LLP

P.O. BOX 55874

BOSTON, MA 02205

EXAMINER

CLINE JR, JAMES LAMAR

ART UNIT

PAPER NUMBER

3677

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,272	Applicant(s) TAGUSARI, EIKO	
	Examiner JAMES CLINE JR	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/7/2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-20 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-20 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☒ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 7/7/2011 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

THIS FINAL ACTION IS RESPONSIVE TO THE AMENDMENT FILED ON 7/7/2011

Status of Claims

- Claims 1-20 were amended.
- Claims 1-20 are pending.

Drawings

1. The drawings are objected to because of the following informality:

The exploded view of Fig. 1 is not properly shown. Pursuant to 37 CFR 1.84(h)(1), when an exploded view is shown in a figure which is on the same sheet as another figure, the separated parts of the exploded view should be placed in brackets. Although applicant has amended Fig. 1 to include brackets, such brackets do not embrace the separated parts, resulting in a lack of clarity. However, examiner notes that brackets are no longer necessary because applicant has amended the drawing sheets such that Fig. 1 is the only figure on replacement sheet 1.

Specification

2. The disclosure is objected to because of the following informalities:

The disclosure contains mistakes in citing reference numerals. For example, page 5, line 11 recites "the groove (3)" instead of "the groove (30)."

The disclosure contains a mistake in describing Fig. 9. Page 9, line 4 states that Fig. 9 is "in section," but the figure is not a section view.

The disclosure is inconsistent in referencing a structural element of the invention. After introducing a "screw thread (12)" on page 5, line 26, the disclosure recites inconsistent terms for the structural element associated with reference numeral 12, such

as “screw head” and “thread head.” The application should use the same term consistently throughout the specification, claims, and drawings.

Appropriate correction of these informalities is required.

Claim Objections

3. Claim 1 is objected to because of the following informalities: unclear language and improper grammar.

- The claim recites “a nut body” instead of “the nut body.” (Line 5)
- The claim recites “said groove” instead of “said grooves.” (Line 12)
- The claim recites “do not” instead of “does not.” (Line 13)

4. Claim 7 is objected to because of the following informality: unclear claim language. Claim 7, line 1 recites the preamble “A lock nut according to or claim 2 . . .” instead of “A lock nut according to claim 2” Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

7. Claim 1 recites: “a nut body having a plurality of partially circumferential grooves each extending along a same radius” This recitation results in a lack of clarity because the grooves of the lock nut shown in the figures do not extend along a same radius. Rather, the grooves of the lock nut shown extend along a same circumference.

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Accordingly, for the purposes of this Office action, claim 1 has been treated on the merits as if it recited: “a nut body having a plurality of partially circumferential grooves each extending along a same circumference”

8. Claim 1 recites: “wherein each of a plurality of projections is disposed between each of the plurality of grooves” This recitation results in a lack of clarity because the projections and grooves of the lock nut shown in the figures do not show the claimed relationship. Rather, the lock nut shown in the figures includes each of a plurality of projections being disposed between two of the plurality of grooves.

Accordingly, for the purposes of this Office action, claim 1 has been treated on the merits as if it recited: “wherein each of a plurality of projections is disposed between two of the plurality of grooves”

9. Claim 1 recites: “an outer circumferential radius corresponding to each of the plurality of partially circumferential grooves” This recitation results in a lack of clarity because the term “circumferential radius” does not have an ordinary and customary meaning, and it is not defined in the specification. For the purposes of this Office action, claim 1 has been treated on the merits as if it recited: “an outer circumference corresponding to each of the plurality of partially circumferential grooves”

10. Claims 3 and 7 each recite: “a screw head being formed on said inner side face and threadably engaged with a threaded part of said bolt.” This recitation results in a lack of clarity because it creates a structural relationship between a feature (the screw head) of the claimed invention and an object (the bolt) that the claimed invention is

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configured to act upon. Based on the claims and specification, claims 1-20 are directed to a lock nut, not the combination of a lock nut and a bolt. Accordingly, the claimed structural relationship is improper and unclear. For the purposes of this Office action, claims 1-20 have been treated on the merits as if they are directed to the lock nut itself, and as if they recited: “a screw head being formed on said inner side face and threadably engageable with a threaded part of said bolt.”

11. Claims 4, 8, 9, and 10 recite: “wherein said fastening nut is connected to the side of each of said projections of said nut body” There is insufficient antecedent basis for “said fastening nut” in the claims. Additionally, the recitation results in a lack of clarity because it creates a structural relationship between features (the projections) of the claimed invention and an object (the fastening nut) that the claimed invention is configured to act upon. Based on the claims and specification, claims 1-20 are directed to a lock nut, not the combination of a lock nut and a fastening nut. Accordingly, the claimed structural relationship is improper and unclear.

Response to Arguments

12. Applicant’s arguments on pages 11-12 of the reply filed on 7/7/2011, pertaining to whether the prior art of record fairly describes or suggests each and every element of the currently amended claim 1 as required to support a rejection under 35 USC § 103, have been fully considered and are persuasive. Accordingly, the claim rejections under 35 USC § 103 communicated in the prior Office action have been withdrawn.

Allowable Subject Matter

13. Claims 1-20 would be allowable if rewritten to overcome the rejection under 35 U.S.C 112, 2nd paragraph, set forth in this Office action.

14. The following is a statement of reasons for the indication of allowable subject matter: The claimed lock nut, comprising “a nut body having a plurality of partially circumferential grooves each extending along a same circumference, from a seat surface of the lock nut to a circumferential edge of a threaded hole, wherein each of a plurality of projections is disposed between two of the plurality of grooves and is made from the same material as that of the nut body and comprises: an arcuate outer side face extending above the seat surface, from an intersection of the seat surface and an outer circumference corresponding to each of the plurality of partially circumferential grooves and toward a center of the nut body, [and] an inner side face being an extension of an inner face of said threaded hole,” and “wherein a depth of said grooves is configured such that when said nut body is threadably engaged with a bolt and fastened against the head of the bolt, each of the plurality of projections is crushed and does not enter a space between a seat surface of the head of the bolt and the seat surface of the nut body,” is not taught or fairly suggested by the prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Cline whose telephone number is 571-270-3069. The examiner can normally be reached on Monday-Friday, 7:30-5:00, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor Batson/
Supervisory Patent Examiner, Art Unit 3677

/J. L. C./
Examiner, Art Unit 3677